The profile of the Moon, with a comparatively smooth outline, was now seen passing off from the Sun's disk.

It is known to most observers, that when viewing the heavenly bodies the focus of a telescope is altered by the passage of any considerable amount of mist between the object and the observer. While altering the position of the eye-piece to suit the rapidly changing conditions under which I was observing, I noticed that the flying clouds appeared to have a somewhat granular texture. Bringing the eye-piece much more so as to focus the telescope upon the clouds, I became aware that a tremendous snow-storm was going on in the upper regions of our atmosphere.

The telescope I was using cannot be brought to focus upon any object at a less distance than from 500 to 600 yards, and I should judge as it focussed distinctly on the particles of snow, at some distance shorter than the full length of the focussing tube, that the snow I was looking at must have been nearly half a mile high. The motion being of course magnified by the power of the telescope, snow-flakes passing horizontally across the field of view in front of the Sun at an enormous velocity, presented a most curious spectacle.

As this occurrence took place during the eclipse, and so shortly after the minimum temperature had been noted on the Earth, I think it quite possible that the interception of the solar rays was the cause of the phenomenon.

To unassisted vision the snow presented only the appearance of a slight fleecy cloud, slightly dimming the Sun.

Upper Holloway, March 8.

On the Measurement of the Apparent Disks of Stars.
By G. Knott.

(*Additions to a Paper in the Monthly Notice for January last, p.* 87.)

The agreement with theory, though generally satisfactory, is not exact, owing to the fact that the apparent disk has no measurable boundary. It has been shown by the Astronomer Royal, in his treatise "On the Undulatory Theory of Optics," that if e be the radius of the aperture of a telescope in inches, the extreme diameter of a star disk in seconds, to the first black ring, will be $\frac{2{\cdot}76}{e}$. In the annexed table I have given, for the telescope apertures employed in the preceding observations, the theoretical disk diameters calculated in accordance with this formula, and have added in a separate column the corresponding observed diameters resulting from

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1867MNRAS..27..191B

the mean of all the measures with the exception of those of the small component of the double star β *Cygni.*

Aperture of Telescope.	Diam. of Disk calculated.	Diam. of Disk observed.
in.	[illegible]	[illegible]
7·33	0·752	0·693
6·00	0·920	0·870
4·95	1·113	1·120
4·00	1·380	1·437
3·00	1·840	1·862
2·00	2·760	2·572

It will be seen that with the exception of the measures with apertures 4·95, 4·0, and 3·0 inches, which are slightly in excess, the observed diameter is less than the calculated diameter, a result which for the reason given above we might be naturally led to expect.

Woodcroft Observatory, Cuckfield,
January 9, 1867.

Observations of Iris and Vesta made at Dunsink at the Observatory of Trinity College, Dublin. By F. Brunnow, Astronomer Royal for Ireland.

The hope which I expressed in my last communication, that the Ephemeris of *Iris* computed from my tables would give the place of the planet with great accuracy, has been fully realised. I have obtained here the following Meridian observations :—

		Dunsink M.T.	R.A.	Decl.
		h m s	h m s	° ′ ″
1866	Nov. 23	12 44 5·3	4 55 10·03	+24 56 20·8
	25	12 34 20·4	4 53 16·57	24 43 59·5
	28	12 19 36·9	4 50 20·26	24 24 47·5
	30	12 9 45·3	4 48 20·14	24 11 39·2
	Dec. 5	11 45 5·1	4 43 18·50	23 37 53·6
	10	11 20 26·3	4 38 27·39	23 3 36·3
	12	11 10 53·2	4 36 37·09	22 50 0·5
	14	11 1 16·8	4 34 52·17	22 36 36·7

The error of the Ephemeris according to these observations is,—

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